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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,827	06/30/2000	Peter Schwarz	548.0011USU	2208

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Charles N. J. Ruggiero  
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.  
One Landmark Square  
Stamford, CT 06901-2682

EXAMINER
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STOCK JR, GORDON J

ART UNIT	PAPER NUMBER
2877	

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/607,827

Applicant(s)

SCHWARZ ET AL.

Examiner

Gordon J Stock

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/10/03; 2/27/04.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 39-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 20040116.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 10, 2003 has been entered. As well supplemental amendment of February 27, 2004 has been entered.

### ***Drawings***

2. Drawing correction submitted on April 22, 2003 for Fig. 7 is approved. Replacement drawing is required.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the temperature device of claim 52 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the cross-mesh form, ellipse form, and circular form of pattern lacks antecedent basis in the specification (from claim 48). Corrections required.

*Claim Rejections - 35 USC § 103*

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. **Claims 39-42, 44, 45, 49, 50, 52, 54, 56, 58, 60, 64** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)** in view of **Tang et al. (6,313,917)** and **Kurandt (4,838,697)**.

As for **claims 39-42, 44, 45, 49, 50, 52, 54, 56, 58, 60, and 64** Steenhoek in a portable colorimeter discloses the following: a halogen source at a first predetermined angle to the surface, said emitted light having a light intensity over the entire visible spectral range (Figs. 1 and 9); a photosensor aligned at a second predetermined angle to the surface and generating a signal based on reflected light (Fig. 1; 18); filters arranged between light diode and/or photosensors, blue and red filters (col. 6, lines 55-65) and the system comprises daylight spectra (col. 8, lines 1-15) and the system utilizes a sensitivity of the human eye (col. 7, lines 65-69). In addition, Steenhoek suggests that colorimetric systems with filters wish to have an aggregate spectra of light diode and photosensor and filter correspond to daylight spectrum and eye sensitivity if the illuminant has a daylight spectrum (col. 4, lines 58-69). Steenhoek discloses a controller to derive a characteristic (Fig. 2). As for gloss being determined, the system is angled at the specular angle of 45 degrees (col. 5, lines 35-50). Also three characteristics are found (col. 9, lines 10-16) which are perceptual color values (col. 4, lines 45-50). Three light sources are used (Fig. 1) and a plurality of photosensors that are at least three elements are adjacent to each other (Fig. 1, 18; Fig. 2, 18). The angles used are the following: 0, -30, and 65 degrees (col. 5, lines 35-50). In addition, color temperature is controlled and corrected and a temperature

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monitor is used (col. 6, lines 65-67; col. 7, lines 1-5 and lines 40-49). As for relative movement, to change between twelve standard ceramic tiles (col. 9, lines 23-35), movement must be performed.

As for a white diode Steenhoek is silent. However, Tang in a spectrometric system that measures optical characteristics of items teaches that white LEDs are preferred over other broadband sources like tungsten-halogen for the white diodes are longer life, lower power consumption, and less heat is created (col. 3, lines 49-65). In addition, Kurandt in a colorimetric apparatus teaches that halogen lamps give off undesired heat (col. 1, lines 25-40). Therefore, it would be obvious to one skilled in the art to have the light sources comprise white diodes rather than halogen sources for white diodes consume less power, last longer, and do not produce heat as do halogen sources.

7. **Claims 43 and 59** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)** in view of **Tang et al. (6,313,917)** and **Kurandt (4,838,697)** further in view of **Weber et al. (5,268,749)**

As for **claims 43 and 59**, Steenhoek in view of Tang and Kurandt discloses everything as above (see **claims 39 and 56** above). However, they are silent concerning a scatter disk arrangement. Weber in an apparatus for providing uniform illumination teaches using a scatter disk, a diffuser in front of annular stop, to illuminate a sample plane uniformly (col. 10, lines 35-50). Therefore, it would be obvious to one skilled in the art at the time the invention was made to use a diffuser in order to uniformly illuminate the sample.

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8. **Claims 46-48 and 61-63** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)** in view of **Tang et al. (6,313,917)** and **Kurandt (4,838,697)** further in view of **Ohkubo (5,619,427)**.

As for **claims 46-48 and 61-63**, Steenhoek in view of Tang and Kurandt discloses everything as above (see **claims 39 and 56** above). In addition, Steenhoek discloses receiving perceptual values from color coordinates (col. 4, lines 1-45). He is silent concerning a light pattern. Ohkubo in a color conversion method teaches using a light/dark edge grid pattern in order to get color coordinates (Fig. 4; col. 6, lines 35-50). Therefore, it would be obvious to one skilled in the art to have a grid like pattern in order to determine stimulus signal from optical signals.

9. **Claim 51** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)** in view of **Tang et al. (6,313,917)** and **Kurandt (4,838,697)** and further in view of **Klenk et al. (4,918,321)**.

As to **claim 51**, see **claim 39** above. However, they are silent concerning emitting a strip of light perpendicular to the direction of propagation. Klenk in a reflected light scanning method teaches using strips of light to illuminate surface in order to better profile matt surfaces (col. 1, lines 1-15 and lines 53-68). Therefore, it would be obvious to one skilled in the art at the time the invention was made to emit strips of light in order to better profile matt surfaces.

10. **Claim 53** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)** in view of **Tang et al. (6,313,917)** and **Kurandt (4,838,697)** and further in view of **Lex (5,596,412)**.

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As to **claim 53**, see **claim 39**. However, they do not teach a measurement wheel positioned on surface. Lex in a device for physiological assessment of reflective surfaces teaches using a measurement wheel coupled to a rotating angle output device in order to determine the exact geometric relationship of the measuring points on the surface (col. 2, lines 55-64; col. 6, lines 55-67; col. 7, lines 1-30). Therefore, it would be obvious to one skilled in the art at the time the invention was made to have the system comprise a measurement wheel coupled to a rotating angle output device in order to determine the exact geometric relationship of the measuring points on the surface being studied.

11. **Claims 55 and 57** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Steenhoek (4,917,495)** in view of **Tang et al. (6,313,917)** and **Kurandt (4,838,697)** and further in view of the applicant's disclosure of prior art.

As for **claims 55 and 57**, see **claim 39 and 56**. As for the measuring cycle, they are silent concerning the measurement cycle being less than .2 seconds. However, the applicant's disclosure teaches prior art of taking a measurement cycle takes less than .2 seconds (page 5, line 27). Therefore, it would be obvious to one skilled in the art to have the measurement cycle be less than .2 seconds, for measurement cycles with light emitting diodes are typically less than .2 seconds.

### ***Response to Arguments***

12. In response to Remarks of October 10, 2003, please see attached Interview Summary. Again the Examiner found arguments in regards to claims 1 and 31 persuasive. However, due to the cancellation of claims 1-38 and addition of new claims 39-64 and due to the new grounds of

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rejection, the arguments in Remarks of October 10, 2003 and the remarks from the supplemental amendment received February 27, 2004 are rendered moot.

### *Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure which were cited in attached Interview Summary:

U.S. Patent 4,676,653 to Strohmeier et al.

U.S. Patent 5,708,506 to Birang

U.S. Patent 6,381,020 to Tsukamoto et al.

DE 19628250 A1 to Lex et al.

DE 19525566 A1 to Lex

### *Fax/Telephone Numbers*

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

- 1) Contain either a statement "DRAFT" or "PROPOSED AMENDMENT" on the fax cover sheet; and
- 2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

*Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is: (703) 872-9306*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (571) 272-2431. The examiner can normally be reached on Monday-Friday, 8:00 a.m. - 4:30 p.m.



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



gs

March 16, 2004



Zandra V. Smith

Primary Examiner

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